

REMARKS

Applicants have carefully considered this Application in connection with the Examiner's Office Action of May 17, 2007, and respectfully request reconsideration of this Application in view of the above amendment and the following remarks.

Pending in this application are Claims 1, 6-13, 19-22, 24, 26, 28, 58, 61-63, 65-68, 71 and 72.

Applicants have amended Claim 1 to provide that feature constraints are divided into two classes, with one feature constraint class defining whether the constraint is to an edge or to a point and a definition of the edge or the point. Support for this amendment can be found in the specification at Page 9, Paragraph 30. Applicants have also amended Claims 1 and 58 to provide that in the step of ordering the plurality of built features or 3-D features, the plurality of built features or list of ordered features must be ordered consistently with the CAD system's ordering expectations. Also, in the step of interfacing the binary file format, the binary file format is specific for the CAD system. Support for these amendments can be found in the specification at Page 7, Paragraph 25.

Claim 9 has been amended to define derived data as any additional information used during the building of the 3-D model. Support for this amendment can be found in the specification at Paragraph 26. Claim 20 has also been amended to provide that the stored two-dimensional input views are capable of being used to provide subsequent 3-D model validation. Support for this amendment can be found in the specification at Paragraphs 62-63. Applicants have cancelled Claims 59 and 60 and have amended Claim 58 to incorporate the limitations of these claims.

Claim 61 has also been amended to provide that the step of back projecting the three-dimensional model is for the purpose of validating the three-dimensional model against the two-dimensional drawing. Support for this amendment can be found in the specification at Paragraph 53. Claim 65 has been amended to provide that the non-graphical entities include all dimension lines, centerlines, construction lines, hatching, text, title blocks, and borders. Support for this amendment

can be found in the specification at Paragraph 56. Claim 71 has been amended to provide that the subparts are join features including single features or combinations of features. Support for this amendment can be found in the specification at Paragraph 58. Claim 71 has also been amended to provide that all subparts are extracted, as stated in the specification at Paragraph 59. Claim 72 has been amended to provide that each of the feature subtrees contains the necessary data to create a 3-D feature. Support for this amendment can be found in the specification at Paragraph 69.

I. Continued Examination

Applicants wish to thank the Examiner for entering Applicants' submission filed on February 12, 2007.

II. Specification

The Examiner has objected to the specification because it contains drawings appearing on Pages 54-57. Applicants have amended the specification above to delete the drawings appearing on Pages 54-57. The material appearing on these pages of the specification has been added to the figures. In particular, new Figures 4-7 have been added to incorporate these drawings. References to these figures found in the specification at Pages 51-52 have been amended to reflect the appropriate number. Furthermore, descriptions of the new figures have been added to Page 6 of the specification. In view of these amendments, Applicants respectfully request that the objections to the specification be withdrawn.

III. Rejections Under 35 U.S.C. §112, Second Paragraph

Claims 59, 65-58, and 71 stand rejected pursuant to 35 U.S.C. §112, second paragraph, as being incomplete for omitting essential steps. The Examiner asserts that the preamble of the claims requires the conversion of a 2-D drawing to a complete 3-D model, but that the steps of the claims do not actually allow the model to be built. Applicants have amended Claim 58 to incorporate the limitations of Claims 59 and 60. Claim 58 now contains additional steps which lead to the production of a parametric feature-based three-dimensional model. Thus, independent Claim 58, as well as the claims dependent on Claim 58, now incorporate steps that result in the creation of a 3-D model. Applicant therefore respectfully requests that this rejection be withdrawn.

IV. Rejections Under 35 U.S.C. §103(a)

A. Claims 1, 6, 7, 11-13, 19-22, and 24

Claims 1, 6, 7, 11-13, 19-22, and 24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the NPL Document “Form Feature Extraction from 2-D Orthographic Views” by Balachander (“Balachander”), in view of U.S. Patent No. 6,629,065 to Gadh (“Gadh”) and U.S. Patent No. 7,149,677 to Jayaram et al. (“Jayaram”). The Examiner asserts that Balachander teaches the steps of (a) building a plurality of features based on a feature class to give a plurality of built features, wherein the feature class comprises feature geometry, feature constraints, and feature dimensions, (b) defining each built feature as a geometric representation of an individual feature type, and (c) ordering the plurality of built features using geometry of up to six orthographic views of the built features. The Examiner admits that Balachander does not teach the remaining claim elements but instead asserts that Gadh teaches the step of building a 3-D feature-based model based on the ordering of the plurality of built features to give a representation and that Jayaram teaches the step of storing the representation in an intermediate binary file format.

1. **Balachander does not teach a feature class, as amended**

Applicants continue to assert that Balachander does not teach the step of building a plurality of features based on a feature class because **Balachander does not teach a “feature class” as that term is explained in the specification and defined in the amended claims.** As Applicants have already asserted, the “feature database” mentioned in Section 5.4.5, pages 54-56, of Balachander clearly shows that it does not store any data pertaining to the features in the 3-D domain other than elementary parameters such as height, length and depth of the generic shapes. On Page 23 of the current Office Action, the Examiner has addressed this argument by asserting that “height, length, and depth of the generic shapes are features and fulfill the specific claim limitations as provided.” In response, Applicants have amended Claim 1 to better define what is meant by a “feature constraint.” Claim 1 now provides that a feature constraint is divided into two classes, with one feature constraint class defining whether the constraint is to an edge or to a point and a definition of the edge or the point. Thus, in response to the Examiner’s comments on Page 24 of the Office Action, there is now

something explicitly cited in the claims relating to feature storage, and particularly to feature constraints, which is missing from Balachander.

2. Balachander does not teach the step of ordering the features, as amended

Applicants also maintain that Balachander does not teach or suggest the step of ordering the features identified. Applicants have amended Claim 1 to specify that in the step of ordering the features, the features must be ordered consistently with the CAD system's ordering expectations. As explained in the specification at Paragraph 25, the order of features in the 3-D model must represent the order with which the model needs to be built in the targeted CAD system. There is no such teaching in Balachander because Balachander preceded the idea of using this type of ordering required by a CAD system. The cited portion of Balachander merely discusses a taxonomy of features, prevalent during the time of the publication. The Examiner states on Page 24 of the Office Action that the enclosure relationships in Balachander "imply there is at least some type of order present." Even if these enclosures and loop hierarchies in Balachander actually did "imply" some sort of order, they certainly do not come close to teaching the step of ordering features in a particular way that is consistent with that required by a CAD system.

Thus, the term "ordering" as it is used in the claims clearly pertains to the completely resolved order of individual 3-D features required while building the 3-D model, wherein the ordering must be consistent with the CAD system's ordering expectations, and the claims refer to the process of transfer of model data based on this ordering. Balachander does not teach or suggest resolution of feature order in this manner. As a result of the absence of feature ordering, Balachander cannot and does not describe any process of building the three-dimensional model from the identified features. The ordering of features and the building of the three-dimensional model are required in Claim 1.

Because Balachander does not teach the limitations of independent Claim 1, it also does not teach the limitations of dependent Claims 6, 7, 11-13, 19-22, and 24.

Nevertheless, it should be emphasized, with regard to the rejections of Claims 6-7, the sections of Balachander cited by the Examiner do not teach the subject matter of Claims 6 and 7.

The claims require that the geometry library and feature library be adapted to build the three-dimensional model. However, **Balachander lacks the ability to build a three-dimensional model.** Much of the form feature information in Balachander is essentially still stored in 2-D loop stages. Balachander merely identifies the existence of form features from the input 2-D drawing and marks it out. By contrast, in order to make the 3-D model output readable and editable in a CAD software system, as the claims require, these libraries must be much more extensive. They must store design features, not just form features or manufacturing features. However, Balachander is incapable of identifying design features because Balachander's algorithms look only for generic shapes such as cones, spheres, and parallelopipeds.

In addition, with regard to the rejections of Claims 11-13, Applicants respectfully assert that **Balachander's teachings regarding tracing loops do not constitute teachings regarding the definition of features.** The teachings regarding the tracing of loops in Balachander is merely part of the algorithm used for tracing the primary loop in the orthographic views and is still in the 2-D domain. These descriptions from Balachander, at page 35, merely refer to loops from views in which the dimensions are in the XY, YZ, or XZ plane. Just because Balachander refers to a line having an end point with X, Y, or Z coordinates does not mean that Balachander teaches anything about using a 3-D coordinate system to define (i.e. place or position) features. Furthermore, Claim 12 specifies the use of a 3-D coordinate system used to locate the work plane, sketch plane, and face for each specific 3-D feature. Balachander only teaches a coordinate system associated with a loop.

Applicants respectfully argue that Balachander's algorithm at Page 46 has not detected that a cylinder needs to be build on the face because the algorithm is still in the 2-D domain. The drawing 5.23 in Balachander is not a three-dimensional model but merely a graphical representation of the model in an isometric view wherein the features identified have been marked. Although the Examiner's general interpretation of what a plane is and how it might be extracted from 2-D views is correct, Balachander does not create a separate class nor does it teach the association of that class to the 3-D feature. The term "elevation" in Claim 13, as it is explained in the specification, refers to the extent of the profile drawn in the orthogonal direction and is not related to the general term "plan/elevation" that is often used in building drawings to refer to the top and front orthographic

views respectively. Balachander has not created a three-dimensional model but instead has merely identified the form features in the input drawing. Claims 11-13 require defining features using a 3-D coordinate system, and this limitation is not taught by Balachander.

As mentioned earlier, the features identified in Balachander do not store any information related to their positioning in the 3-D Plane system and as a result cannot be built in 3-D space. Although the Examiner mentions “these features have an elevation from a given world origin...ground from which the 3-D shape rests on” in the explanation of the rejection, Balachander does not store the same “elevation” data that is essential for future creation in a 3-D model. Claims 11-13 require this capability.

3. Gadh does not teach the feature constraints

With regard to Claim 19, Gadh does not teach the feature constraints as they are defined in independent Claim 1. Independent Claim 1 requires that feature constraints are divided into two classes, with one feature constraint class defining whether the constraint is to an edge or to a point and a definition of the edge or the point. Gadh does not teach such feature constraints. Although the use of the term “constraints” is similar in the two contexts, the purpose behind using them is different in each case, leading to a difference in their actual definition. Gadh stores constraints that already exist in a 3-D model in order to perform inferences relating to improving the design of the model. By contrast, the claims are directed to building a 3-D model in a target CAD system. This difference in purpose is reflected in the difference between the nature of the constraints.

With regard to Claims 20-21, Claim 20 has been amended to provide that the stored two-dimensional input views are capable of being used to provide 3-D model validation. **Balachander does not provide any discussion about providing model validation capability.** Furthermore, Balachander does not teach that input views are saved to the binary file format. Balachander’s drawings show a 2-D coordinate plane for each view (XY, XZ, or YZ). This is not the same as the coordinate system of Claim 21.

4. Jayaram's teachings are not applicable

With regard to Claims 22 and 24, Jayaram's teachings are not applicable to these claims. Claims 22 and 24 state that the system specific data and application specific data are transferred through an intermediate file based on the ordering of built features. **Jayaram teaches only 3-D to 3-D translation and is not applicable to the claims, which require conversion of 2-D drawings to 3-D models.** Jayaram only specifies creating utilities to handle only the specific data that could not be passed through the intermediate file. Jayaram works in the native-geometry level of 3-D data whereas the current claims work on higher-level design features. Thus, Jayaram does not teach or suggest the remaining claim limitations.

In conclusion, the combination of the cited references Balachander, Gadh, and Jayaram still falls short of teaching all of the limitations of the invention claimed in Claims 1, 6, 7, 11-13, 19-22, and 24. Thus, Applicants respectfully submit that the claims are not obvious in view of these references and request that the rejections under 35 U.S.C. §103(a) be withdrawn.

B. Claims 8-10

Claims 8-10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Balachander, in view of Gadh, in further view of Jayaram, and in further view of NPL Doc "C++ Plus Data Structures" by Dale ("Dale"). The Examiner asserts that Dale teaches the limitations of the claims not supplied by Balachander. As these claims are also dependent on Claim 1, which has been amended above, Applicants respectfully assert that the arguments above regarding the patentability of Claim 1 are equally applicable here. **Balachander does not teach the underlying claim limitations pertaining to feature constraints and feature ordering.** Applicants also assert that Dale teaches only the generic C++ copy functions of that program and not the type of call functions required by the claims, which copy data to a specified data element. Furthermore, Claim 9 has been amended to provide that derived data is any data used during the building of the 3-D model, but which is not necessarily required in the minimum data needed to define the constructs

mathematically. This is not taught by Dale, nor by any of the standard programming language manuals. Thus, the limitations of Claims 8-10 are not suggested by the combination of references.

In conclusion, the combination of the cited references Balachander, Gadh, Jayaram, and Dale still falls short of teaching all of the limitations of the invention claimed in Claims 8-10. Thus, Applicants respectfully submit that the claims are not obvious in view of these references and request that the rejections under 35 U.S.C. §103(a) be withdrawn.

C. Claims 26 and 28

Claims 26 and 28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Balachander, in view of Gadh, in further view of Jayaram, and in further view of U.S. Patent No. 5,970,490 to Morgenstern ("Morgenstern"). The Examiner asserts that Morgenstern teaches the limitations of the claims not taught by Balachander. As these claims are also dependent on Claim 1, which has been amended above, Applicants respectfully assert that the arguments above regarding the patentability of Claim 1 are equally applicable here. **Balachander does not teach the underlying claim limitations pertaining to feature constraints and feature ordering.**

Applicants also respectfully assert that **Morgenstern does not teach the use of an intermediate binary file format for a 3-D parametric model.** 3-D parametric models are not generally in binary file format, and Morgenstern does not teach otherwise. Furthermore, Morgenstern's use of the term "metadata" is not that used in the claims. The "metadata" in Morgenstern is used to point to the control characters that help organize the file at a lower level of abstraction. This is applicable to any basic binary file. The "metadata" in the claim refers to all secondary information related to the parametric 3-D design feature that might be included in the intermediate file format. Furthermore, where Morgenstern discusses the concept of "sequential processing," this is merely a reference to lower-level organization of the binary file and not to the idea of serializing, or writing data in a specific order to the intermediate file format so that it can be extracted in the same order back while transferring the data to the target CAD system.

With regard to Claim 28, **Morgenstern does not teach incrementally updating the binary file format**, which includes both individual features and metadata associated with each feature. Morgenstern only teaches the process of accessing the byte data in a generic binary file. The phrase “incrementally updated” is not defined this way in the claims, which only require the updating of the changed content of the intermediate file format. This is clear from Paragraph 11 of the specification, which indicates that the incrementally changed data is just the differences between the first and second binary files. Thus, Morgenstern does not teach the elements of the claims that are not taught by Balachander and Claims 26 and 28 are not obvious in view of the combination of these references.

In conclusion, the combination of the cited references Balachander, Gadh, Jayaram, and Morgenstern still falls short of teaching all of the limitations of the invention claimed in Claims 26 and 28. Thus, Applicants respectfully submit that the claims are not obvious in view of these references and request that the rejections under 35 U.S.C. §103(a) be withdrawn.

D. Claims 58 and 65-68

Claims 58 and 65-68 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Balachander, in view of U.S. Patent No. 6,212,441 to Hazama (“Hazama”), in further view of Jayaram. The Examiner asserts that Balachander teaches most of the claim limitations, including the step of producing an ordered list of three-dimensional figures. Claim 58 has been amended to provide that the ordered list of three-dimensional features is ordered consistently with the CAD system’s ordering expectations. As explained in the specification at Paragraph 25, the order of features in the 3-D model must represent the order with which the model needs to be built in the targeted CAD system. There is no such teaching in Balachander because Balachander preceded the idea of using this type of ordering required by a CAD system. The cited portion of Balachander merely discusses a taxonomy of features, prevalent during the time of the publication.

Applicants respectfully assert that Balachander’s methods of analyzing the views is specifically said to be constraint-based. This is stated on page 18 of Balachander and Page 14 of the Office Action. Applicants’ method is not constraint-based. It does not look for specific patterns in

recognition schema – only generic loops and corresponding orthogonal matches. Appendix III of Balachander also clearly shows that Balachander is incapable of producing a 3-D model, as required by the claims. **Balachander does not teach any 3-D data in the form of 2-D profiles and feature depth.**

Furthermore, Hazama clearly does not teach the limitations of Claim 58(b), which requires that the 2-D drawing be corrected to give a corrected 2-D drawing. This occurs prior to running the algorithms for identifying features and producing the 3-D model. **Hazama very clearly teaches the “clean-up process” to “refine the resultant 3-D model,” not the 2-D drawings.** This concept is entirely different and would not result in improved 2-D drawings prior to their use to build the 3-D model. Thus, Hazama does not teach the limitations of Claim 58(b).

Furthermore, Jayaram does not teach the limitations of Claim 58(f). Jayaram concerns a 3-D CAD to 3-D CAD translator that works on transferring the native geometric content between CAD systems. This is much different in scope and relevance compared to the parametric features that the current claims deal with. By way of explanation, parametric feature-based modeling utilizes 3-D models that contain a layer of abstraction over the underlying native geometry. While transferring the features, the geometry also gets automatically transferred. The current claims offer an advantage over the teachings of Jayaram because they facilitate the transfer of 3-D model data at a higher level of abstraction and can transfer feature content along with the underlying geometry. The size of the intermediate file format is therefore significantly smaller than that used by Jayaram, leading to greater efficiency. Thus, one of skill in the art would not consider the teachings of Jayaram to be helpful or relevant to producing the claimed subject matter.

With regard to Claim 65, Applicants continue to dispute the Examiner’s contention that Balachander teaches automatically splitting entities. At page 25, Balachander specifically references the views being in separate files: “The DXF files of the three orthographic views of the object are input to the preprocessor. Information about the entities are extracted *from each file* and stored in a format...” [emphasis added]. The figure (Figure 5.19) on Page 47 of Balachander cited by the Examiner actually describes the results of the identification of isolated loops in a 2-D drawing. This

is entirely different from Claim 65, which refers to the automatic splitting of geometric entities (lines, arcs, circles etc.) in the corrected 2-D input drawing to form a network of further indivisible entities.

Applicants have also amended Claim 65 to provide that the non-graphical entities include all dimension lines, centerlines, construction lines, hatching, text, title blocks, and borders. Thus, the non-graphical entities that are being automatically filtered are not merely text, but also include all content in the drawing that is not part of the actual geometry used for feature identification, including title blocks and notes. This filtering process is done automatically in the claims. **Hazama does not teach this filtering step, as amended, because Hazama merely teaches detecting and eliminating text for the 2-D drawings.** Hazama does not teach the filtering of those graphical entities that are not part of the orthographic views. Thus, Hazama does not teach this step of Claim 65.

Hazama also does not teach the step of performing error checking on the 2-D drawing, as required by Claim 65. **Hazama very clearly teaches the “clean-up process” to “refine the resultant 3-D model,” not the 2-D drawings.** This concept is entirely different and would not result in improved 2-D drawings prior to their use to build the 3-D model. Thus, Hazama does not teach the limitations of Claim 65.

Because the underlying limitations of independent Claim 65 are not taught or suggested by Balachander or Hazama, dependent claims 66-68 are also not rendered obvious by the combination of references. In addition, **Balachander does not teach or suggest the step of “translating the entities to the common origin” as required by Claim 67.** While Balachander does make a general reference to “translation” on page 56, this is merely a common computer graphic term for a type of geometric transformation. Balachander’s use of the word “translational” merely refers to a classification of the type of form feature (i.e. channel, step, or open pocket). Thus, the word “translational” in Balachander has nothing to do with translating an entity to a common origin. For that reason, Balachander does not teach the limitations of Claims 66 or 67 either.

In conclusion, the combination of the cited references Balachander, Hazama, and Jayaram still falls short of teaching all of the limitations of the invention claimed in Claims 58 and 65-68. Thus, Applicants respectfully submit that the claims are not obvious in view of these references and request that the rejections under 35 U.S.C. §103(a) be withdrawn.

E. Claims 59-63

Claims 59-63 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Balachander, in view of Hazama, Jayaram, and Morgenstern. Claims 59 and 60 have been cancelled, leaving only Claims 61-63. The Examiner asserts that Balachander teaches the limitations of these claims.

Applicants respectfully assert that Claims 61-63 concern a validation of the final results of the method. **This final step involves back projection, overlaying, and comparison of the 3-D model with the original 2-D drawing.** Claim 61 has been amended to emphasize that these steps pertain to validating the three-dimensional model. The final results, including the 3-D model and features, are compared as viewed from similar viewpoints with each of the corresponding 2-D views for validation. These steps are not taught by Balachander. Rather, the portion of Balachander cited by the Examiner concerns only the “constraint-based” portion of the form feature detection in which the comparing is being done on what is found in one view with the other views to first create a feature. This is done purely using the orthographic views of the input 2-D drawing only. The reference to the portion of Balachander at page 18 that begins “*We study the 2-D orthographic projections of the 3-D geometric entity...*” refers to the studying the orthographic views in the input 2-D drawing itself. It is true that all input drawings will contain orthographic projections. At this stage of Balachander’s discussion, no feature recognition has begun yet and only the input drawing is being studied. This is not a validation process because Balachander is still at this point creating the features and does not yet have something to validate. Thus, Balachander does not teach the limitations of Claims 61-63.

In conclusion, the combination of the cited references Balachander, Hazama, Jayaram, and Morgenstern still falls short of teaching all of the limitations of the invention claimed in Claims 59-

63. Thus, Applicants respectfully submit that the claims are not obvious in view of these references and request that the rejections under 35 U.S.C. §103(a) be withdrawn.

F. Claim 71

Claim 71 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Balachander, in view of Hazama, Jayaram, and NPL Doc “Intersecting features...” by Ganesan (“Ganesan”). The Examiner asserts that Ganesan teaches the limitations of these claims.

First, Applicants respectfully assert that Balachander, Hazama, and Jayaram do not teach the underlying limitations of Claim 58, as described above. Thus, the limitations of Claim 71 are also not obvious in view of this combination of references.

Ganesan does not teach the limitations of Claim 71 because Ganesan does not teach the subpart extraction of this claim, as amended. Claim 71 has been amended to provide that **the subparts are join features, including single features and combinations of features, and that all subparts are extracted**. Subparts, as claimed, are building blocks for the join features. While Ganesan uses the word “subparts,” his definition of the word is much narrower than that used in the amended claims. **Ganesan describes only a method for classifying simple and intersecting features, not the extraction of all subparts, which is also required by the claims**. The claimed method extracts all subparts, including isolated, non-isolated, and intersecting subparts using an algorithm. Although some terminology may overlap with that used by Ganesan, this does not mean that Ganesan teaches or suggests the full extent of the claim limitations. Thus, Ganesan does not provide teachings of the remaining limitations of Claim 71 not taught by Balachander.

In conclusion, the combination of the cited references Balachander, Hazama, Jayaram, and Ganesan still falls short of teaching all of the limitations of the invention claimed in Claim 71. Thus, Applicants respectfully submit that the claim is not obvious in view of these references and request that the rejection under 35 U.S.C. §103(a) be withdrawn.

G. Claim 72

Claim 72 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Balachander, in view of Hazama, Jayaram, and Gadh. The Examiner asserts that Balachander and Gadh teach the additional limitations of these claims.

First, Applicants respectfully assert that Balachander, Hazama, and Jayaram do not teach the underlying limitations of Claim 58, as described above. Thus, the limitations of Claim 72 would not have been obvious in view of this combination of references.

Furthermore, **Balachander does not teach the feature subtrees of the claims, as amended.** Claim 72 has been amended to provide that the feature subtrees contain the necessary data to create a 3-D feature. Balachander's output file in Appendix III clearly shows that no parametric data related to feature content is stored in the feature database. Only the loop index is stored in the database. Figure 5.19 of Balachander is shown merely to show the workings for a test drawing. In addition, Figure 2.1 of Balachander is a classification of form features and does not teach the step of setting a relative volume operation. The claims require that the relative volume operation be performed for each of the feature subtrees, as defined in the claims, after the profile analysis step.

Gadh does not teach any of the limitations of Claim 72 either, because **Gadh pertains to conversions between 3-D designs only.** Gadh's graph structures represent already created 3-D models being used as input. This is not the same as the claimed subject matter, in which the feature analysis step is performed on feature subtrees, which are intermediate data structures that are not yet in the 3-D domain. The feature analysis of the claimed method arrives at the relations (i.e. parent/child, ancestor/descendent) with the aim to create the final feature tree that decides the building order of the features to correctly create the 3-D model. For these reasons, Gadh does not teach or suggest the remaining limitations of Claim 72.

In conclusion, the combination of the cited references Balachander, Hazama, Jayaram, and Gadh still falls short of teaching all of the limitations of the invention claimed in Claim 72. Thus,

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Applicants respectfully submit that the claim is not obvious in view of these references and request that the rejection under 35 U.S.C. §103(a) be withdrawn.

V. Conclusion

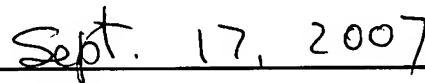
Applicants respectfully submit that, in light of the foregoing amendments and comments, Claims 1, 6-13, 19-22, 24, 26, 28, 58, 61-63, 65-68, 71 and 72 are in condition for allowance. A Notice of Allowance is therefore requested.

If the Examiner has any other matters which pertain to this Application, the Examiner is encouraged to contact the undersigned to resolve these matters by Examiner's Amendment where possible.

Respectfully submitted,



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